

ABSTRACT OF THE DISCLOSURE

A voltage regulator of an automotive generator has a MOS transistor, flywheel diode, voltage detection circuit, and booster circuit. When a battery terminal voltage is below a voltage adjustment setting, current is supplied by a current supply circuit separate from a charge pump circuit to raise a gate voltage of the MOS transistor until the source voltage of the MOS transistor becomes greater than the reverse bias voltage of the flywheel diode, and the charge pump circuit output is applied to the MOS transistor after this specified value is reached. The charge pump circuit has an even number of capacitor stages.